Chapter 9

OpenSIGLE - Crossroads for Libraries, Research and Educational Institutions in the Field of Grey Literature

Dominic J. Farace and Jerry Frantzen,
GreyNet International, Netherlands

Christiane Stock and Nathalie Henrot,
INIST-CNRS, France

Joachim Schöpfel, University of Lille 3, France

9.1 Introduction

This chapter is based on a paper[1] presented at the Tenth International Conference on Grey Literature (GL10) in which GreyNet's collections of conference preprints were made accessible via the OpenSIGLE Repository. OpenSIGLE offers a unique distribution channel for European grey literature with roots dating back a quarter century. In the first part of the chapter, the experience of INIST as service provider and GreyNet as data provider will be discussed including recent developments.

Later in the chapter, the draft of a project proposal called for in the final session of that conference will be elaborated. The proposal seeks to explore the capacity required for the OpenSIGLE Repository to develop in multilateral and international cooperation in support of European research infrastructures committed to the open access of grey literature collections and resources. Emphasis is placed on the involvement of libraries, research centers, and institutions of higher education, as well as, requirements for a grey literature network service to sustain further development, exploitation, and promotion of the OpenSIGLE Repository.

9.2 From SIGLE to OpenSIGLE: A Progress Report

SIGLE (System for Information on Grey Literature in Europe) was a unique multidisciplinary database dedicated to grey literature. Up to 15 European partners participated in SIGLE, mostly national libraries or libraries aligned to well-known

---

1   Farace, D.J., J. Frantzen, C. Stock, N. Henrot, and J. Schöpfel (2009), OpenSIGLE, Home to GreyNet's Research Community and its Grey Literature Collections: Initial Results and a Project Proposal. – In: The Grey Journal : An International journal on Grey Literature, vol. 5, no 1, Spring 2009. ISSN 1574-1796

research institutes. Their principal goals were the centralized collection of scientific and technical reports, theses and other grey material and to facilitate access to these documents through an engagement for document delivery or loan. Created in 1980 and produced from 1984 onwards by EAGLE (European Association for Grey Literature Exploitation), the database was last available through STN International and on CD-ROM via Silverplatter/Ovid until it became dormant in 2005. INIST then decided to make the data publicly available on an open access platform. Details of the migration from SIGLE to OpenSIGLE have been presented at the GL8 Conference[2] held in December 2006 (Schöpfel 2007). And in December 2007, the OpenSIGLE website[3] went live.

This chapter further discusses three related issues dealing with OpenSIGLE:

(1) usage statistics covering two years of access to the repository,
(2) a bilateral cooperative agreement with GreyNet, the Grey Literature Network Service, and
(3) a project proposal exploring the capacity required for the OpenSIGLE Repository to develop in multilateral and international cooperation.

9.2.1 OpenSIGLE Traffic Report

Usage information for a database is at all times interesting for the producer of the information. In this case an additional incentive was the fact that OpenSIGLE records, which migrated from the SIGLE database, had not been updated since 2005. Would then the move to an open access environment be at all "useful" for the grey literature community?

The usage analysis is based on data obtained through phpMyVisites, an open source software for website statistics that works with a javascript image call. Only completely uploaded pages are counted and robots are excluded. The following data provide only a part of the information that can be obtained through phpMyVisites. Other statistics based on server logs might however provide even higher figures.

The first figure shows that the number of visits as well as the number of page views has increased steadily since the opening of the website in 2007. A first peak was reached in July 2008 following a press campaign in the middle of the French holidays. The result is both surprising and rewarding since visits usually decrease during summer months.

The usage of OpenSIGLE continues to increase. In terms of page views and number of visits in which the average duration is 90 seconds, the increase is well over four times the amount in March 2010 compared to March 2009. Visits where

---

2   Schöpfel, J., C. Stock, and N. Henrot (2007), From SIGLE to OpenSIGLE and beyond: An in-depth look at Resource Migration in the European Context. – In: The Grey Journal : An International journal on Grey Literature, vol. 3, no 1, Spring 2007. ISSN 1574-1796

3   OpenSIGLE - System for Information on Grey Literature in Europe, http://opensigle.inist.fr/

only a single page is viewed represent a stable 50% average of the traffic to the site. These users accessed the database after searching via Google or Google Scholar. While in other cases, users may carry out extensive searches and view hundreds of web pages.
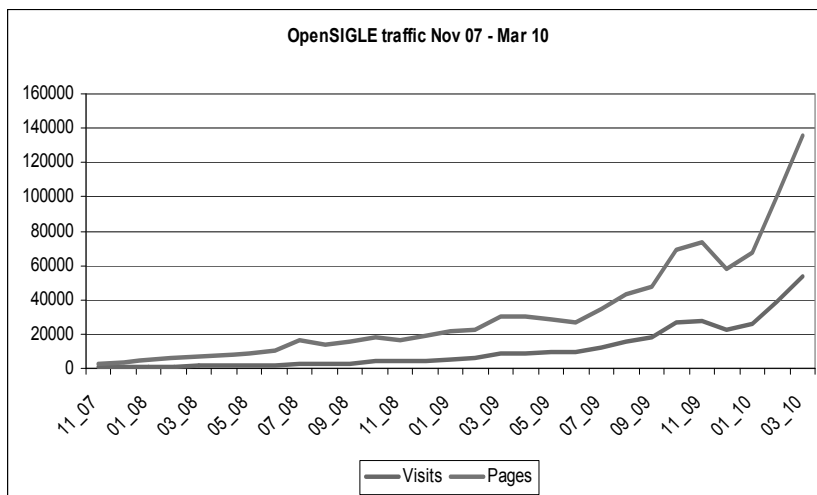

Figure 1: OpenSIGLE traffic report – number of visits and pages viewed

9.2.2 Geographic Origin of Visitors

The software used allows us to monitor the origin of visitors for the top ten countries each month. The sum of 29 months worth of data shows the United Kingdom in the lead, closely followed by the United States. A grouping of other former EAGLE Countries by number of visits to the repository shows Germany, France, Italy, and Spain in their respective order. Countries in the long tail may not appear on a given monthly top ten listing. It is obvious that OpenSIGLE users are not only from Europe, but also from the United States, Canada, and since recently China and Australia. This clearly is an indication that European grey literature presents an interest worldwide.
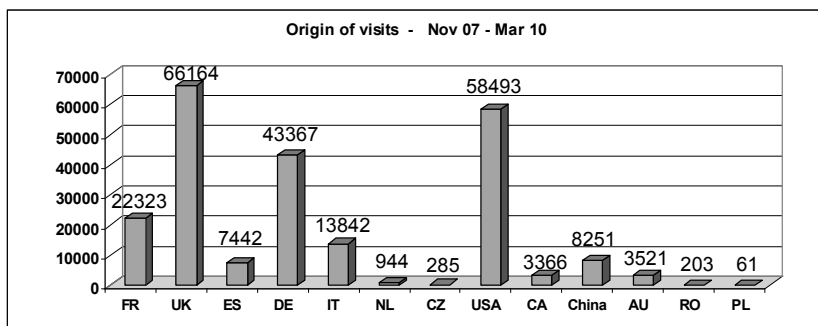
Figure 2: Origin of visitors to OpenSIGLE

9.2.3 Usage and Feedback

Compared to other INIST websites and e-resources, statistics show that 16% to 19% of the users come from North America. OpenSIGLE is in third place among users from this continent preceded by the English version of INIST's institutional website[4] and IndicaSciences[5] - an INIST product dedicated to research evaluation and indicators. INIST websites geared to a French speaking audience receive an average of 7% of the visits from North America.

The analysis of web links as well as feedback through incoming messages reveal that OpenSIGLE is often used in the biomedical and public health sectors. However, at present, statistics do not allow us to go into further detail regarding scientific domains.

During the course of 2008, several requests were received from former users of the STN or Ovid versions of the SIGLE database dealing with complex search strategies. Such questions required another look into the limits of the Jakarta Lucene search engine implemented within DSpace, especially with regard to the length of the search query. It was discovered that Lucene allows for more possibilities than mentioned in the help provided by DSpace. Besides inquiries involving search strategies, users were also interested in the download and export features of OpenSIGLE.

One critical view of OpenSIGLE found on a blog[6], mentions the absence of links to the full text of documents. Of course this is understandable given the fact that it was one of the very reasons why the SIGLE database was discontinued.

---

4   English version of INIST's institutional website, http://international.inist.fr
5   INIST product dedicated to research evaluation and indicators, http://indicasciences.inist.fr
6   Critical view of OpenSIGLE found on a blog, http://healthinformaticist.wordpress.com/ 2008/08/28/does-opensigle-exist-for-its-own-sake/

9.2.4 Promotional Activities

Before the official announcement of the launch of OpenSIGLE, the project was presented at a DSpace meeting focused on the exchange of experiences among its users (Grésillaud and Stock, October 2007) [7]. Shortly afterwards, and as a result of that meeting, visitors from Spain and Italy were observed on the OpenSIGLE website. In December 2007, INIST also focused attention on OpenSIGLE during the GL9 Information Walk-Thru at the Ninth International Conference on Grey Literature in Antwerp, Belgium[8].

In May 2008, a short presentation for the French public was given at I-expo (IT conference and exhibit) in Paris. And in July, INIST sent a press release to national and international lists and agencies *i.e*. Information World Review and Research Information. This no doubt resulted in the above mentioned peak of visits in the middle of summer. A brief message about OpenSIGLE was placed simultaneously on the French and international homepages of INIST. Since "news items" are normally less frequent during summer months, the message remained for a longer period of time on these WebPages.

Today OpenSIGLE is indexed by Google and Google Scholar and included in the bookmarks of national libraries and research institutes. Following the creation of the WorldWideScience Alliance and website[9] in June 2008, INIST (a partner in this Alliance) proposed to integrate OpenSIGLE into the WorldWideScience portal. This was realized in September 2008. And, in the web statistics that following month WWS.org appeared as forth partner site for visitors accessing OpenSIGLE through a website with GreyNet.org[10] following closely behind. Overall, these different promotional activities have had a positive impact on the use and branding of OpenSIGLE.

9.3 GreyNet, On the Background and Forefront of OpenSIGLE

Here, the relationship between GreyNet and the former EAGLE Association including its SIGLE database will be addressed. This will then be followed by a conscious positioning of GreyNet in the newfound OpenSIGLE Repository with INIST as its Service Provider.

---

7   Grésillaud, S., and C. Stock (October, 2007), DSpace at INIST-CNRS: one platform, different usages and resulting specific needs/problems. Paper presented at DSpace User Group Meeting 2007, Food and Agriculture Organization of the United Nations, Rome, Italy. Available at http://www.aepic.it/conf/viewabstract.php?id=208&cf=11

8   Grey Foundations in Information Landscape (2007), Ninth International Conference on Grey Literature, 10-11 December 2007 in Antwerp, Belgium. – GL9 Conference Program and Abstracts. – ISBN 978-90-77484-09-8

9   WorldWideScience.org, the global science gateway, http://worldwidescience.org/

10   GreyNet, Grey Literature Network Service, http://www.greynet.org/

In 1992, EAGLE agreed to act as main sponsor for the launch of the International Conference Series on Grey Literature first held in the Amsterdam RAI in December 1993. GreyNet was at that time a newly established network service – driven on two fronts: (1) to promote the field of grey literature and the work of organizations involved in this branch of information the world over, and (2) to stimulate research on grey literature and make the results available both in print and digital (electronic) formats. EAGLE participated as sponsor and/or program committee member in the first five Conferences in the GL-Series.

In early 2005 GreyNet was invited as an observer to the final EAGLE Board meeting at FIZ Karlsruhe upon which the EAGLE Association formally voted to be dissolved. It was at that same meeting that the initial draft of an OpenSIGLE proposal[11] was presented by Dr. Joachim Schöpfel , last in line of EAGLE Presidents.

In the two ensuing years (2005-2007), INIST worked unilaterally on OpenSIGLE, which could then be described as a caretaker repository. In the autumn of 2007, once OpenSIGLE had become operational, GreyNet met with colleagues at INIST to hammer out an agreement that on the one hand would make GreyNet OAI-compliant and on the other hand would expand INIST's role in OpenSIGLE from solely a caretaker to an external service provider. To this end, GreyNet's conference based collections would provide an example of OpenSIGLE's potential for other data providers in the grey literature community.

9.3.1 GreyNet's Collections in OpenSIGLE

In December 2008, five years of research issuing from the GL Conference Series had been uploaded in the OpenSIGLE Repository. The bilateral contact between INIST as service provider and GreyNet as data provider was successful in customizing a metadata record for the enriched publication of conference preprints and the subsequent migration of GreyNet's collections to an open access environment. The bilateral agreement likewise holds for future conferences in the GL-Series, continuing with GL10 records onward.

Retrospective input of the initial four conferences in the GL-Series (1993-1999) would of course make GreyNet's collections comprehensive in OpenSIGLE. To this end, in January 2009, GreyNet purchased from Emerald Group Publishing – former MCB University Press – the rights to allow the full-text papers from the earlier four conferences in the GL-Series to be made available in the OpenSIGLE Repository. This step was not only applauded by the open access community[12], but it also suggests other possibilities to retrieve content controlled

---

11   Schöpfel, J. (2006), MetaGrey Europe, A Proposal in the Aftermath of EAGLE-SIGLE. – In: GL7 Conference Proceedings, pp. 34-39. – ISBN 90-77484-06-X

12   Posting by Peter Suber on January 29 (2009), http://www.earlham.edu/~peters/fos/ 2009/01/greynet-buys-rights-to-deposit-papers.html

by commercial publishers[13]. GreyNet proceeded with the production of metadata records, while INIST took on the work of scanning and creating image files for the retrospective records. In October 2009, half of the retrospective input had been achieved.

9.3.2 GreyNet's Potential for OpenSIGLE

The initial reaction from the grey literature community to GreyNet's alliance with OpenSIGLE has been positive; however, due to the brief timeframe in which GreyNet's collections are actually available in the OpenSIGLE Repository, it is too early to provide substantial user statistics. While GreyNet has been receiving monthly reports from INIST generated via OpenSIGLE, GreyNet is looking for other ways to compile use and user statistics via its own channels. In this way, there would be separate data issuing from INIST as service provider and GreyNet as data provider that would allow for comparisons and provide grounds for decision making in the future.

In September 2008, an OpenSIGLE webpage was added to the GreyNet website with hyperlinks to its conference collections already in the repository; and in January 2009 that webpage became a main page on GreyNet's website. Not only did the number of visits to the webpage double in the first half of 2009, but it now also allows for the addition of sub-pages used for promotional and instructive purposes.

The Grey Literature Network Service feels that it has even more to offer OpenSIGLE than its conference collections. Going back to 1992, when GreyNet was first launched, one of its primary goals was to promote the field of grey literature and the work of organizations involved in this branch of information. What EAGLE was to SIGLE, GreyNet could be to OpenSIGLE and more. GreyNet operates internationally and maintains a full-time established network service specializing in grey literature with information products and resources both in print and electronic formats. GreyNet has for the past seven years (2003-2009) often together with colleagues from INIST carried out research projects involving citation analysis, surveys, interviews, as well as standard review of the literature. Over the past years (1992-2009), GreyNet has developed channels for promotional outreach as well as a modest publishing arm. More recently, GreyNet has set up a program of training and instruction in the field of grey literature, which could also be linked to OpenSIGLE. These and other such initiatives would no doubt serve and support future developments in the OpenSIGLE Repository.

---

13 Posting by Heather Morrison on August 6 (2009), http://www.connotea.org/comments/uri/92b11113ecf827be19a369f21e81161b

9.4 OpenSIGLE Project Proposal, A Feasibility Study

What began unilaterally with the vision and determination of INIST and what has recently been expanded in bilateral cooperation with GreyNet has yet even greater potential for the international grey literature community. GreyNet together with INIST are committed to drafting a project proposal. This proposal will explore the capacity required for the OpenSIGLE Repository to further develop in multilateral and international cooperation in support of European research infrastructures committed to open access of their grey literature collections and resources, where special emphasis is geared to libraries, research centers, and institutions of higher education.

9.4.1 Project Lead-Time

Both INIST and GreyNet have put forth a number considerations and recommendations based on their recent experience with the OpenSIGLE Repository. An inventory of issues and recommendations were collated and will be used in the development of work packages in the implementation phase of the project. Some of the issues include: closing time gaps in record entries, linking to full-text documents as well as plus links to datasets and software, integrating OpenSIGLE in other networks and portals, streamlining the SIGLE Classification scheme, etc.

9.4.2 Project Consortium

Based on the main objective of the proposed project and in relation to the issues that would have to be dealt with in order to achieve this objective, project partners and external advisors need to be identified and brought together in a consortium for the duration of the project. To achieve optimal results, the number of stakeholders in the project would be limited. In the diagram below, the content as well as management base of the project is visualized. However, the names of the prospective organizations, who would be carrying out the projects' roles and tasks are masked here until final confirmation.
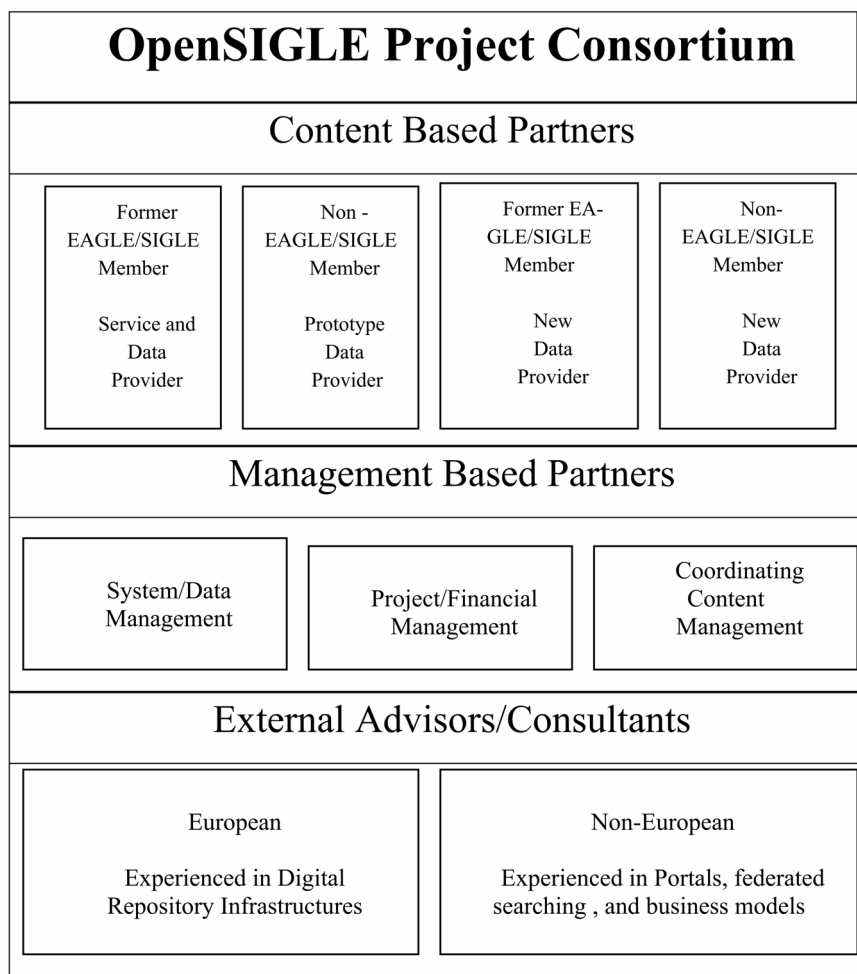
OpenSIGLE Project Consortium

Content Based Partners

Former EAGLE/SIGLE Member Service and Data Provider	Non - EAGLE/SIGLE Member Prototype Data Provider	Former EAGLE/SIGLE Member New Data Provider	Non-EAGLE/SIGLE Member New Data Provider

Management Based Partners

System/Data Management	Project/Financial Management	Coordinating Content Management

External Advisors/Consultants

European Experienced in Digital Repository Infrastructures	Non-European Experienced in Portals, federated searching , and business models

Figure 3: OpenSIGLE Project Consortium

9.4.3 Expected Results and Impact of the Project

This project has its roots in a European framework of cooperation among long-standing infrastructures including national libraries, research centers, and networked services. The outcome of this project would support and strengthen policy development for infrastructures in the field of grey literature, where open access to their collections and other knowledge based resources stand central. The Open-SIGLE Repository with its technical know-how would be sustained by a coordi-

nating infrastructure in the advancement of European cross-disciplinary research well beyond its geographical borders. A draft of this project proposal will be presented during a Panel Session at the Eleventh International Conference on Grey Literature[14] held in the Library of Congress in Washington D.C on 14-15 December 2009 The panel members will take the opportunity to discuss the project proposal in order to illicit feedback from the international grey literature community, raise public awareness to the OpenSIGLE Repository, and solicit leads for further project funding.

---

14   GL11 Program and Conference Bureau, http://www.textrelease.com/

Appendix: SIGLE – OpenSIGLE Timeline

2009-…	2006-…	2003-…	1999-…	1985-…
2009 GreyNet's Retrospective Collections 1997-1999 in OpenSIGLE; GL11 -Eleventh International Conference on Grey Literature in Washington D.C. with INIST as Co-Sponsor **2008** OpenSIGLE included in WWS.org, World-Wide Science Portal; GreyNet's Collections 2003-2007 accessible via OpenSIGLE; GL10 – Tenth International Conference on Grey Literature in Amsterdam with INIST as Co-Sponsor **2007** OpenSIGLE operational; Bilateral agreement INIST (Service provider) and GreyNet (Data Provider); GL9 – Ninth International Conference on Grey Literature in Belgium with INIST and the EU as Co-Sponsors	**2006** SIGLE migration to Open-SIGLE with INIST as Service Provider; GL8 – Eighth International Conference on Grey Literature in New Orleans with INIST as Co-Sponsor **2005** EAGLE Association dissolved and SIGLE Database dormant; INIST proposal for Open-SIGLE; GL7 – Seventh International Conference on Grey Literature in Nancy, France with INIST as Host and EU as Co-Sponsor **2004** GL6 – Sixth International Conference on Grey Literature in New York, NY with INIST as Co-Sponsor	**2003** GreyNet relaunch; GL5 – Fifth International Conference on Grey Literature in Amsterdam with INIST as Co-Sponsor and EAGLE on Program Committee **2000** GreyNet discontinued	**1999** GL'99 – Fourth International Conference on Grey Literature in Washington D.C. USA **1997** GL'97 – Third International Conference on Grey Literature in Luxembourg with EC as Host and EAGLE on Program Committee **1995** GL'95 – Second International Conference on Grey Literature in Washington D.C. USA; **1993** GL'93 – First International Conference on Grey Literature in Amsterdam with EAGLE as Sponsor and on the Bi-Annual GL-Program Committees 1993-1999 **1992** GreyNet founded	**1985** EAGLE Association was founded as producer of the SIGLE Database **1980** SIGLE established as database and document delivery system; Later exploited via STN and Blaise Hosts as well as SilverPlatter CD-ROM **1978** York Seminar on Grey Literature hosted by British Library and the EC

Part II, Section Four

Applications and Uses of Grey Literature

What do we know about the usage and impact of grey literature? Gentil-Beccot reports from recent studies pertaining to the use of information in the High-Energy Physics (HEP) community, where survey data and citation as well as log analysis is employed. Her chapter contains interesting details and observations, for example on the link between published articles, preprints and other grey literature, as well as on peer-review, digital libraries, and the role of the scientific community. She provides evidence of the growing importance of grey literature for communication in the new technological environment relevant to her discipline. She further reveals that today HEP scientists ask yet for even more and see "access to data and tables as important, (…) another essential aspect of the future of GL in high-energy physics".

The second chapter in this section assesses the real use and impact of grey literature by public institutions. "(…) thousands of studies are conducted, and tens of thousands of print and digital reports are produced annually, many of which have direct or indirect policy implications. What is poorly documented is whether adequate attention is paid to such reports, which are typically grey literature, and to subsequent advice, both by sponsoring agencies and by other users." Here, Mac-Donald [et al.] examine empirical results from ongoing research (citation and survey data) and conclude with ten recommendations to improve awareness, retrieval, use, and the standing of grey literature.

While data from MacDonald [et al.] emanate from the Marine Sciences, the third chapter in this section draws upon survey results from the Geosciences, namely karst research. Chavez confirms that grey literature is regularly used but less frequently cited. In so doing, he confronts the limited use of Web2.0 tools on geoscience platforms. Here again, the interaction between content and IT environment, e.g. digital library, infrastructure, content management and added value services become manifest. While content is king, content needs environment. In his concluding remarks, Chavez emphasizes the "value of a library-led collaboration with (…) research communities".

The final chapter in this section investigates a specific sector of the information market by examining the use of grey literature produced by non-governmental organizations (NGOs). The research by Crowe [et al.] focuses on healthcare information in developing countries. "NGOs create grey literature in the form of reports, online newsletters, blogs, etc. However, (…) there is a need to increase involvement of NGOs in the management of their knowledge output." The authors

argue in favour of partnerships with information services and other such agencies in the implementation of dedicated open repositories. And, their chapter concludes with a model or framework meant to improve preservation and dissemination of grey items.

Based on the work of the authors in this section, we can draw upon consensus that a lot still remains to be done. Today we have considerable knowledge regarding the usage of digital online resources such as journals, articles, databases, and e-books. However, much less is known on the usage and impact of grey items, especially in open archives. While the standardization of metrics and tools is ongoing, we nevertheless need more usage data - especially from surveys and deep log analyses.

For a better understanding of this, the reader would do well to consider the following three lines of questioning: What kind of (basic) empirical data and metrics do we need to assess and compare the usage of grey items? How can we assess impact and usage in different environments e.g. scientific communities as opposed to political communities? And ultimately, how can we best describe the link between the IT environment and usage?